

Appendix 3. GeoEngineers 2008 Waste Disposal Report

December 12, 2008

U.S. Fish and Wildlife Service
911 NE 11th Avenue
Portland, Oregon 97232

Attention: Dan Forney

Subject: Report on Soil Excavation and Disposal
San Pablo Bay National Wildlife Refuge – Cullinan Ranch Farmyard
San Pablo Bay, California
File No. 0758-137-01

INTRODUCTION

GeoEngineers, Inc. (GeoEngineers) has prepared the following letter report for the U.S. Fish and Wildlife Service (FWS) to document the removal and disposal of pesticide-contaminated soil at the San Pablo Bay National Wildlife Refuge – “Farmyard Area” at the Cullinan Ranch site (site) on San Pablo Bay, California. The project work was completed in accordance with the terms of General Services Administration (GSA) Contract GS-10F-0342K and under Delivery Order #1019080311, issued on July 3, 2008.

BACKGROUND

The Cullinan Ranch site consists of a former tidal area located west of the Napa River along the northern shore of San Pablo Bay. Previous environmental investigation (Tetra Tech, 2003) determined that the soils within the “Farmyard Area”, exceeded criteria levels for total DDTs and total chlordane, based on San Francisco Bay Ambient Sediment Concentrations and Effect Range Median (ERM) concentrations. The “Farmyard Area” is approximately 100 feet by 150 feet and the primary vegetation around the site is coyote bush, fennel and grasses. It is suspected that the pesticide contamination occurred as a result of past agricultural practices. Pesticide application was discontinued with transfer of the Cullinan Ranch site to FWS ownership in 1991.

Confirmation sampling of this area (Moore Twining, 2007) confirmed that nine recent and former sampling locations contained concentrations of chlordane and total DDT above the ERM concentrations which is defined as the concentrations above which biological effects are likely. (San Francisco Bay Regional Water Quality Control Board, 2000, “Draft Staff Report, Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines.”) These elevated concentrations appear to be confined to the upper 2 feet of soil, as the soil samples collected at a depth of 2 to 2.5 feet below ground surface (bgs) at these locations indicate no elevated organochlorine pesticide concentrations exceeding sediment-screening criteria.

PROJECT CRITERIA

Project remediation goals were identified during an earlier environmental investigation (Moore Twining, 2007) and described in the FWS Statement of Work and the San Francisco Bay Ambient Sediment Concentrations. Specifically, DDT and total chlordane were identified as

organochlorine pesticides that exceed ERM values presented in the Beneficial Reuse Report". The ERM value was defined as "...concentration equivalent to the 50th percentile of the compiled study data. Sediment concentrations above the ERM are 'frequently' associated with adverse effects."

Using the wetland surface values presented in the Beneficial Reuse Report, the cleanup goal for DDT and chlordane are 0.007 milligrams per kilogram (mg/kg) and 0.0023 mg/kg, respectively.

FIELD ACTIVITIES AND CHEMICAL ANALYTICAL RESULTS

The field events were conducted on three separate mobilizations. The following sections discuss each event.

AUGUST 2008 EVENT

On August 6 and 7, 2008, GeoEngineers documented the removal and disposal of 67.69 tons of pesticide contaminated soil from the barnyard. GeoEngineers subcontracted PSC Environmental Services (PSC) to complete the excavating and waste hauling activities. Excavated soils were disposed at Keller Canyon Landfill in Pittsburg, California. Disposal documentation is contained in Attachment A.

The area of soil removal targeted the nine locations where previous sampling indicated DDT and/or chlordane concentrations that exceeded ERM values, as shown in Figure 2. Subsurface soil observed during the field activities consisted primarily of brown silt with clay. Relatively consistent soil conditions were encountered across the site. Groundwater was not encountered during the field activities.

Following excavation, GeoEngineers field personnel collected confirmation soil samples from the base of the excavated areas (Figure 2). Soil samples were collected with a clean, stainless steel trowel and transferred directly into labeled, laboratory-prepared sample jars. Sample jars were filled completely leaving no headspace. Samples were placed in a cooler with ice and delivered to the analytical laboratory within laboratory-specified holding times. Standard chain-of-custody procedures were observed during transport of the samples to the laboratory. Possession of the samples was documented by the chain-of-custody. The chain-of-custody forms were signed and dated in the appropriate places by parties involved with a transfer of custody.

Upon receipt of the samples at the laboratory, whether delivered by GeoEngineers personnel or a courier service, the following procedures were followed. The custody seals were broken, the chain-of-custody form was signed by the laboratory personnel, and the conditions of the samples were recorded on the form. The original chain-of-custody form remained with the laboratory and copies were returned to the relinquishing party.

Soil samples collected were submitted to the analytical laboratory for analysis of total organochlorine pesticides by Environmental Protection Agency (EPA) Method 8081A. Laboratory analytical reports are contained in Attachment B. Only two confirmation soil samples contained detectable concentrations of organochlorine pesticides. TP-S-11 contained DDT at 0.0248 mg/kg and TP-P-6 contained 0.0492 mg/kg of methoxychlor. The sample from TP-S-11 contained DDT concentrations in excess of ERM concentrations (0.007 mg/kg).

SEPTEMBER 2008 EVENT

GeoEngineers returned to the site on September 30, 2008 to complete over-excavation in the vicinity of sample TP-S-11. GeoEngineers directed the over-excavation of an additional 18.16 tons of soil in this area (Figure 2). Two confirmatory soil samples were collected immediately below the original sample locations following the excavation, and submitted to the analytical laboratory.

Soil sample TP-S-11b was below the method reporting limit (MRL) for all compounds. Soil sample TP-P-10 contained a number of pesticides with DDT concentrations of 0.132 mg/kg. The sample from TP-P-10 contained DDT concentrations in excess of ERM concentrations (0.007 mg/kg).

NOVEMBER 2008 EVENT

GeoEngineers returned to the site for a second over-excavation in the area of sample TP-P-10 on November 19, 2008. GeoEngineers directed the over-excavation of an additional 12.63 tons of soil from the area of TP-P-10 (Figure 2). One confirmatory soil sample was collected immediately below the original sample location following the excavation, and submitted to the analytical laboratory.

Soil sample TP-P-10b contained low levels of methoxychlor, a common pesticide, but did not contain DDT above the MDL. Methoxychlor does not have a designated ERM value.

CONCLUSIONS

GeoEngineers directed the excavation and offsite disposal of approximately 98.48 tons of pesticide contaminated soil. The final results of the confirmatory soil sampling indicate that the impacted soils at the site have been removed in a manner consistent with project remediation goals.

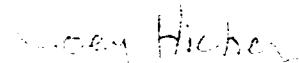
REFERENCES

- San Francisco Bay Regional Water Quality Control Board, 2000. "Draft Staff Report, Beneficial Reuse of Dredged Materials: Sediment Screening and Testing Guidelines."
- Tetra Tech EM, Inc. "Cullinan Ranch Contaminant Sampling Report, Vallejo, California" Contract Number GS-10F-0076K, Order Number 11640-3-MO83A. November 2003.
- Moore Twining Associates, Inc. "Results of Limited Soil Investigation, Cullinan Ranch Site, San Pablo Bay National Wildlife Refuge, August 2007."

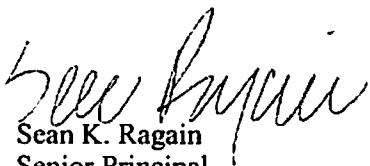
We appreciate the opportunity to assist the FWS on this project. Please call if you have questions regarding this report.

Yours very truly,

GeoEngineers, Inc.



Joey Hickey
Senior Project Manager



Sean K. Ragin
Senior Principal

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Attachments: Table 1. Summary of Soil Sample Chemical Analytical Data, Select Organochlorine Pesticides
Figure 1. Vicinity Map
Figure 2. Site Plan
Attachment A. Waste Disposal Documentation
Attachment B. Chemical Analytical Data

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TABLE 1
SUMMARY OF SOIL CHEMICAL ANALYTICAL DATA¹
SELECT ORGANOCHLORINE PESTICIDES
SAN PABLO BAY NATIONAL WILDLIFE REFUGE - CULLINAN RANCH FARMYARD
SAN PABLO BAY, CALIFORNIA

Sample Identification	Date Sampled	Organochlorine ² Pesticides (EPA Method 8081A) (mg/kg)				
		DDT	Methoxychlor	DDE	DDD	Chlordane (total)
TP-S-12 (0.5)	08/06/08	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115
TP-S-11 (0.5)	08/06/08	0.0248	<0.0126	<0.0126	<0.0126	<0.0126
TP-S-10 (0.5)	08/06/08	<0.0127	<0.0127	<0.0127	<0.0127	<0.0127
TP-S-6 (0.5)	08/06/08	<0.00993	<0.00993	<0.00993	<0.00993	<0.00993
TP-P-6 (0.5)	08/06/08	<0.220	0.0492	<0.220	<0.220	<0.220
TP-S-3 (0.5)	08/06/08	<0.0138	<0.0128	<0.0128	<0.0128	<0.0128
TP-P-9 (0.5)	08/06/08	<0.0108	<0.0108	<0.0108	<0.0108	<0.0108
TP-P-8 (0.5)	08/07/08	<0.0115	<0.0115	<0.0115	<0.0115	<0.0115
TP-P-7 (0.5)	08/09/08	<0.0123	<0.0123	<0.0123	<0.0123	<0.0123
TP-S-11B	09/30/08	<0.0128	<0.0128	<0.0128	<0.0128	<0.0128
TP-P-10	09/30/08	0.132	0.620	0.0630	0.0874	0.1752
TP-P-10B	11/19/08	<0.0123	0.0184	<0.0123	<0.0123	<0.0123
Applicable Screening Level Value		0.007	--	--	--	0.0023

Notes:

¹Chemical analytical analyses were performed by TestAmerica of Beaverton, Oregon.

²Please refer to the analytical packet for a complete list of analytes.

³Values represent the median effects range as published in "Beneficial Reuse of Dredged Materials: Sediment Screening and Test Guidelines". May 2000

EPA = U.S. Environmental Protection Agency

mg/kg = milligrams per kilogram

"<0.58" indicates analyte not detected above the method reporting limit.

-- = not analyzed

Bold indicates analyte detection.

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Miles

Vicinity Map

USFWS-Cullinan Ranch
San Pablo Bay, California

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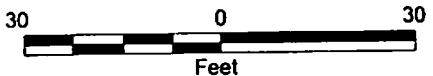
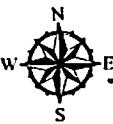
Figure 1

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: US Topographic Map from National Geographic Services (August 2008 - ArcWeb Extension)

Transverse Mercator, Zone 10 N North, North American Datum 1983
North arrow oriented to grid north



TP-S-6 S-6

T
S-7

Legend:

- Sample Locations (GeoEngineers, 2008)
- Previous Sample Locations (MTA 2007)
- Previous Sample Locations Staked by USFWS Employees (Tetra Tech, 2003)
- - - Steel Pipe

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in an attached document. GeoEngineers, Inc. can not guarantee the master file is stored by GeoEngineers, Inc. and will serve as

Reference: Base drawing provided by Moore Twining Associates, Inc.
Cullinan Ranch Final EIS/EIR

Site Plan

USFWS-Cullinan Ranch
San Pablo Bay, California

GEOENGINEERS



ATTACHMENT A
WASTE DISPOSAL DOCUMENTATION

- | | | | | |
|---|--|---|--|---|
| <input checked="" type="checkbox"/> Keller Canyon Sanitary Landfill
901 Bailey Road
Pittsburg, CA 94565
Phone (925) 458-9800
Fax (925) 458-9891 | <input type="checkbox"/> Coffin Butte Landfill
28972 Coffin Butte Road
Corvallis, OR 97330
Phone (541) 745-2018
Fax (541) 745-3826 | <input type="checkbox"/> Ox Mountain Sanitary Landfill
12310 San Mateo Road
Half Moon Bay, CA 94019
Phone (650) 726-1819
Fax (650) 726-9183 | <input type="checkbox"/> Newby Island Sanitary Landfill
1601 Dixon Landing Road
Milpitas, CA 95035
Phone (408) 945-2800
Fax (408) 262-2871 | <input type="checkbox"/> Forward Landfill
9999 S. Austin Road
Manteca, CA 95336
Phone (209) 982-4298
Fax (209) 982-1009 |
|---|--|---|--|---|

NON-HAZARDOUS WASTE MANIFEST

GENERATOR		WASTE ACCEPTANCE NO.		
U.S. Fish and Wildlife Service		212YB9352		
MAILING ADDRESS		REQUIRED PERSONAL PROTECTIVE EQUIPMENT		
7715 Lakeville Highway		<input checked="" type="checkbox"/> GLOVES	<input type="checkbox"/> GOGGLES	<input type="checkbox"/> RESPIRATOR
Vallejo, CA 94592		<input checked="" type="checkbox"/> HARD HAT		
PHONE		<input type="checkbox"/> TY-VEK	<input type="checkbox"/> SAFETY VEST	
(503) 231-6143		SPECIAL HANDLING PROCEDURES:		
CONTACT PERSON				
Dan Forney				
SIGNATURE OF AUTHORIZED AGENT / TITLE		DATE		
<i>* [Signature]</i>		8/6/88		
GENERATOR CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or Title 22 of the California code of regulations, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.				
WASTE TYPE:				
<input checked="" type="checkbox"/> DISPOSAL		<input type="checkbox"/> SLUDGE		
<input type="checkbox"/> CONSTRUCTION		<input type="checkbox"/> WOOD		
<input type="checkbox"/> DEBRIS		<input type="checkbox"/> OTHER		
<input type="checkbox"/> SPECIAL WASTE				
GENERATING FACILITY		RECEIVING FACILITY		
7715 Lakeville Highway		Vallejo		
TRANSPORTER		NOTES: VEHICLE LICENSE NUMBER TRUCK NUMBER		
INTRINSIC		<i>1205 9D00723</i>		
ADDRESS				
2225 CHALLENGER WAY SUITE 100				
CITY, STATE, ZIP				
SANTA ROSA, CA				
PHONE				
707-578-0960				
SIGNATURE OF AUTHORIZED AGENT OR DRIVER		DATE		
<i>* [Signature]</i>		8/6/88		
I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.				
REMARKS				
FACILITY TICKET NUMBER				
SIGNATURE OF AUTHORIZED AGENT		DATE		
<i>* [Signature]</i>				
CUBIC YARDS				
DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)				
<input type="checkbox"/> SOIL		<input type="checkbox"/> DISPOSE		<input type="checkbox"/> OTHER
<input type="checkbox"/> CONSTRUCTION DEBRIS				
<input type="checkbox"/> NON-FRIABLE ASBESTOS				
<input type="checkbox"/> WOOD				
<input type="checkbox"/> ASH				
<input type="checkbox"/> SPECIAL OTHER				

SCHEDULING MUST BE MADE PRIOR TO 3:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL • ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.

Cullinan Ranch Final EIS/EIR

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GENERATOR COPY

MANIFEST #

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- | | | | | |
|---|--|---|--|---|
| <input checked="" type="checkbox"/> Keller Canyon Sanitary Landfill
901 Bailey Road
Pittsburg, CA 94565
Phone (925) 458-9800
Fax (925) 458-9891 | <input type="checkbox"/> Coffin Butte Landfill
28972 Coffin Butte Road
Corvallis, OR 97330
Phone (541) 745-2018
Fax (541) 745-3826 | <input type="checkbox"/> Ox Mountain Sanitary Landfill
12310 Sar Mateo Road
Half Moon Bay, CA 94019
Phone (650) 726-1819
Fax (650) 726-9183 | <input type="checkbox"/> Newby Island Sanitary Landfill
1601 Dixon Landing Road
Milpitas, CA 95035
Phone (408) 945-2800
Fax (408) 262-2871 | <input type="checkbox"/> Forward Landfill
9999 S. Austin Road
Manteca, CA 95338
Phone (209) 982-4298
Fax (209) 982-1009 |
|---|--|---|--|---|

NON-HAZARDOUS WASTE MANIFEST

GENERATOR		WASTE ACCEPTANCE NO.		
U.S. Fish and Wildlife Service		212Y89352		
MAILING ADDRESS		REQUIRED PERSONAL PROTECTIVE EQUIPMENT		
7715 Lakeville Highway		<input checked="" type="checkbox"/> GLOVES <input type="checkbox"/> GOGGLES <input type="checkbox"/> RESPIRATOR <input checked="" type="checkbox"/> HARD HAT		
CITY, STATE, ZIP		<input type="checkbox"/> TY-VEK <input type="checkbox"/> SAFETY VEST		
PHONE				
(503) 231-8143				
CONTACT PERSON		SPECIAL HANDLING PROCEDURES:		
Dan Forney				
SIGNATURE OF AUTHORIZED AGENT / TITLE		DATE		
* <i>DJF</i> Gatz Hare, PSC		8/6/08		
GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or Title 22 of the California code of regulations, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, If the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.				
WASTE TYPE:				
<input checked="" type="checkbox"/> DISPOSAL		<input type="checkbox"/> SLUDGE		
<input type="checkbox"/> CONSTRUCTION		<input type="checkbox"/> WOOD		
<input type="checkbox"/> DEBRIS		<input type="checkbox"/> OTHER		
<input type="checkbox"/> SPECIAL WASTE				
GENERATING FACILITY				
7715 Lakeville Highway		Vallejo		
TRANSPORTER		NOTES:	VEHICLE LICENSE NUMBER	TRUCK NUMBER
<i>INTRINSIC</i>			<i>98 00273</i>	<i>1205</i>
ADDRESS				
2225 CHALLENGE				
CITY, STATE, ZIP				
PHONE		END DUMP BOTTOM DUMP TRANSFER		
<i>SANTA ROSA</i>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		
707 578-0960		ROLL-OFF(S)	FLAT-BED	VAN DRUMS
SIGNATURE OF AUTHORIZED AGENT OR DRIVER		DATE	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
<i>* <i>DJF</i> KFS</i>		<i>8/7/08</i>		
I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.				
CUBIC YARDS				
<i>20</i>				
DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)				
		DISPOSE	OTHER	
<input checked="" type="checkbox"/> SOIL		<i>6</i>		
<input type="checkbox"/> CONSTRUCTION DEBRIS				
<input type="checkbox"/> NON-FRIABLE ASBESTOS				
<input type="checkbox"/> WOOD				
<input type="checkbox"/> ASH				
<input type="checkbox"/> SPECIAL OTHER				
REMARKS				
FACILITY TICKET NUMBER				
SIGNATURE OF AUTHORIZED AGENT		DATE		
<i>* <i>DJF</i></i>		<i>8/7/08</i>		

SCHEDULING MUST BE MADE PRIOR TO 3:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL • ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.

Cullinan Ranch Final EIS/EIR

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GENERATOR COPY

MANIFEST #

649546

- | | | | | |
|---|--|---|--|--|
| <input checked="" type="checkbox"/> Keller Canyon Sanitary Landfill
901 Bailey Road
Pittsburg, CA 94565
Phone (925) 458-9800
Fax (925) 458-9891 | <input type="checkbox"/> Coffin Butte Landfill
28972 Coffin Butte Road
Corvallis, OR 97330
Phone (541) 745-2018
Fax (541) 745-3826 | <input type="checkbox"/> Ox Mountain Sanitary Landfill
12310 San Mateo Road
Half Moon Bay, CA 94019
Phone (650) 726-1819
Fax (650) 726-9183 | <input type="checkbox"/> Newby Island Sanitary Landfill
1601 Dixon Landing Road
Milpitas, CA 95035
Phone (408) 945-2800
Fax (408) 262-2871 | <input type="checkbox"/> Forward Landfill
9999 S. Austin Road
Maneca, CA 95336
Phone (209) 982-4298
Fax (209) 982-1009 |
|---|--|---|--|--|

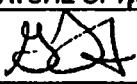
NON-HAZARDOUS WASTE MANIFEST

GENERATOR		WASTE ACCEPTANCE NO.				
U.S. Fish and Wildlife Service MAILING ADDRESS 7715 Lakeville Highway CITY, STATE, ZIP Vallejo, CA 94592 PHONE (503) 231-8143 CONTACT PERSON Dan Forney SIGNATURE OF AUTHORIZED AGENT / TITLE <i>* AD GREGNARS PSC</i>		212YB9352 REQUIRED PERSONAL PROTECTIVE EQUIPMENT <input checked="" type="checkbox"/> GLOVES <input type="checkbox"/> GOGGLES <input type="checkbox"/> RESPIRATOR <input checked="" type="checkbox"/> HARD HAT <input type="checkbox"/> TY-VEK <input type="checkbox"/> SAFETY VEST				
GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or Title 22 of the California code of regulations, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.		SPECIAL HANDLING PROCEDURES:				
		RECEIVING FACILITY				
WASTE TYPE: <input checked="" type="checkbox"/> DISPOSAL <input type="checkbox"/> SLUDGE <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> WOOD <input type="checkbox"/> DEBRIS <input type="checkbox"/> OTHER GENERATING FACILITY 7715 Lakeville Highway Vallejo						
TRANSPORTER <i>INT'L MUSIC</i>		NOTES:	VEHICLE LICENSE NUMBER	TRUCK NUMBER		
ADDRESS 2205 CHALLANGE CITY, STATE, ZIP SANTA ROSA		<i>SD00723</i> <i>1205</i>				
PHONE		END DUMP <input checked="" type="checkbox"/>	BOTTOM DUMP <input type="checkbox"/>	TRANSFER <input type="checkbox"/>		
SIGNATURE OF AUTHORIZED AGENT OR DRIVER <i>Audrey</i>		ROLL-OFF(S) <input type="checkbox"/>	FLAT-BED <input type="checkbox"/>	VAN <input type="checkbox"/>		
		DRUMS <input type="checkbox"/>				
I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.		CUBIC YARDS				
		DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)			DISPOSE	
					<input type="checkbox"/> SOIL	
					<input type="checkbox"/> CONSTRUCTION DEBRIS	
					<input type="checkbox"/> NON-FRIABLE ASBESTOS	
					<input type="checkbox"/> WOOD	
					<input type="checkbox"/> ASH	
					<input type="checkbox"/> SPECIAL OTHER	
					REMARKS	
FACILITY TICKET NUMBER						
SIGNATURE OF AUTHORIZED AGENT <i>*</i>						

SCHEDULING MUST BE MADE PRIOR TO 3:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL. ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.

- | | | | | |
|---|--|---|--|---|
| <input checked="" type="checkbox"/> Keller Canyon Sanitary Landfill
901 Bailey Road
Pittsburg, CA 94565
Phone (925) 458-9800
Fax (925) 458-9891 | <input type="checkbox"/> Coffin Butte Landfill
28972 Coffin Butte Road
Corvallis, OR 97330
Phone (541) 745-2018
Fax (541) 745-3826 | <input type="checkbox"/> Ox Mountain Sanitary Landfill
12310 San Mateo Road
Half Moon Bay, CA 94019
Phone (650) 726-1819
Fax (650) 726-9183 | <input type="checkbox"/> Newby Island Sanitary Landfill
1601 Dixon Landing Road
Milpitas, CA 95035
Phone (408) 945-2800
Fax (408) 262-2871 | <input type="checkbox"/> Forward Landfill
9999 S. Austin Road
Manteca, CA 95336
Phone (209) 982-4298
Fax (209) 982-1009 |
|---|--|---|--|---|

NON-HAZARDOUS WASTE MANIFEST

GENERATOR <i>US Fish and Wildlife Service</i>		WASTE ACCEPTANCE NO. <i>2124889352</i>																	
MAILING ADDRESS <i>7715 Lakeville Highway Vallejo, CA 94582</i>		REQUIRED PERSONAL PROTECTIVE EQUIPMENT <input checked="" type="checkbox"/> GLOVES <input type="checkbox"/> GOGGLES <input type="checkbox"/> RESPIRATOR <input checked="" type="checkbox"/> HARD HAT <input type="checkbox"/> TY-VEK <input type="checkbox"/> SAFETY VEST																	
CITY, STATE, ZIP <i>Vallejo, CA 94582</i>		SPECIAL HANDLING PROCEDURES:																	
PHONE <i>(503) 231-1043</i>																			
CONTACT PERSON <i>Dan Foyner</i>																			
SIGNATURE OF AUTHORIZED AGENT / TITLE <i>*</i> 		DATE <i>9/30/08</i>																	
<p>GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or title 22 of the California code of regulations, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, If the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.</p>																			
WASTE TYPE:																			
<input checked="" type="checkbox"/> DISPOSAL <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> DEBRIS <input type="checkbox"/> SPECIAL WASTE		<input type="checkbox"/> SLUDGE <input type="checkbox"/> WOOD <input type="checkbox"/> OTHER																	
GENERATING FACILITY																			
<i>7715 Lakeville Highway Vallejo</i>																			
TRANSPORTER <i>INTRINSIC</i>		NOTES: VEHICLE LICENSE NUMBER TRUCK NUMBER <i>D900278 1202</i>																	
ADDRESS <i>2225 CHALLENGER WAY SANTA ROSA</i>																			
CITY, STATE, ZIP <i>SANTA ROSA</i>																			
PHONE		<input type="checkbox"/> END DUMP <input type="checkbox"/> BOTTOM DUMP <input type="checkbox"/> TRANSFER <input type="checkbox"/> ROLL-OFF(S) <input type="checkbox"/> FLAT-BED <input type="checkbox"/> VAN <input type="checkbox"/> DRUMS																	
SIGNATURE OF AUTHORIZED AGENT OR DRIVER <i>* Leslie Kipp</i>		DATE <i>9/30/08</i>																	
<p>I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.</p>																			
REMARKS																			
FACILITY TICKET NUMBER																			
SIGNATURE OF AUTHORIZED AGENT <i>*</i>		DATE																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="3">CUBIC YARDS</td> </tr> <tr> <td colspan="3"></td> </tr> <tr> <td colspan="3">DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)</td> </tr> <tr> <td colspan="2"></td> <td>DISPOSE</td> </tr> <tr> <td colspan="2"> <input type="checkbox"/> SOIL <input type="checkbox"/> CONSTRUCTION DEBRIS <input type="checkbox"/> NON-FRIABLE ASBESTOS <input type="checkbox"/> WOOD <input type="checkbox"/> ASH <input type="checkbox"/> SPECIAL OTHER </td> <td>OTHER</td> </tr> </table>					CUBIC YARDS						DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)					DISPOSE	<input type="checkbox"/> SOIL <input type="checkbox"/> CONSTRUCTION DEBRIS <input type="checkbox"/> NON-FRIABLE ASBESTOS <input type="checkbox"/> WOOD <input type="checkbox"/> ASH <input type="checkbox"/> SPECIAL OTHER		OTHER
CUBIC YARDS																			
DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)																			
		DISPOSE																	
<input type="checkbox"/> SOIL <input type="checkbox"/> CONSTRUCTION DEBRIS <input type="checkbox"/> NON-FRIABLE ASBESTOS <input type="checkbox"/> WOOD <input type="checkbox"/> ASH <input type="checkbox"/> SPECIAL OTHER		OTHER																	

SCHEDULING MUST BE MADE PRIOR TO 3:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL. ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.

Nov. 19, 2009 10:28AM	FORWARD INC	No. 6624		
<input type="checkbox"/> Keller Canyon	<input type="checkbox"/> Coffin Butte	<input type="checkbox"/> Ox Mountain	<input type="checkbox"/> Newby Island	<input type="checkbox"/> Forward
Sanitary Landfill 901 Bailey Road Pittsburg, CA 94565 Phone (925) 458-9800 Fax (925) 458-3891	Landfill 28972 Coffin Butte Road Corvallis, OR 97330 Phone (541) 745-2018 Fax (541) 745-3826	Sanitary Landfill 12310 San Mateo Road Half Moon Bay, CA 94019 Phone (650) 728-1819 Fax (650) 728-9183	Sanitary Landfill 1601 Dixon Landing Road Milpitas, CA 95035 Phone (408) 945-2820 Fax (408) 282-2971	Landfill 3999 S. Austin Road Menteca, CA 95335 Phone (209) 882-4293 Fax (209) 882-1008

NON-HAZARDOUS WASTE MANIFEST

GENERATOR		WASTE ACCEPTANCE NO.		
U.S. Fish and Wildlife Service MAILING ADDRESS 7715 Lakeville Hwy		212Y89352		
CITY, STATE, ZIP Vallejo, CA 94592		REQUIRED PERSONAL PROTECTIVE EQUIPMENT		
PHONE (707) 231-6143		<input checked="" type="checkbox"/> GLOVES <input type="checkbox"/> GOGGLES <input type="checkbox"/> RESPIRATOR <input checked="" type="checkbox"/> HARD HAT <input type="checkbox"/> TY-VEK <input type="checkbox"/> SAFETY VEST		
CONTACT PERSON Don Forney		SPECIAL HANDLING PROCEDURES:		
SIGNATURE OF AUTHORIZED AGENT / TITLE *		DATE		
<p>GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or 616.22 of the California code of regulations, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 266 and is no longer a hazardous waste as defined by 40 CFR Part 261.</p>				
WASTE TYPE:				
<input checked="" type="checkbox"/> DISPOSAL <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> DEBRIS <input type="checkbox"/> SPECIAL WASTE		<input type="checkbox"/> SLUDGE <input type="checkbox"/> WOOD <input type="checkbox"/> OTHER		
GENERATING FACILITY 7715 Lakeville Hwy		RECEIVING FACILITY		
VALLEJO				
TRANSPORTER		NOTES:	VEHICLE LICENSE NUMBER	TRUCK NUMBER
Intrinsic Transportation, Inc. ADDRESS 2225 Challenger Way, Suite 100			8F 93 692	B140
CITY, STATE, ZIP Santa Rosa, CA 95407		Binder Truckline		
PHONE (707) 578-0960		END DUMP	BOTTOM DUMP	TRANSFER
SIGNATURE OF AUTHORIZED AGENT OR DRIVER *		ROLL-OFF(S)	FLAT-BED	VAN
				DRUMS
CUBIC YARDS				
20				
DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)				
<input checked="" type="checkbox"/> SOIL		<input type="checkbox"/> DISPOSE		<input type="checkbox"/> OTHER
<input type="checkbox"/> CONSTRUCTION DEBRIS				
<input type="checkbox"/> NON-FRIABLE ASBESTOS				
<input type="checkbox"/> WOOD				
<input type="checkbox"/> ASH				
<input type="checkbox"/> SPECIAL OTHER				
<p>I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.</p>				
REMARKS				
FACILITY TICKET NUMBER				
SIGNATURE OF AUTHORIZED AGENT *		DATE 11-19-08		

SCHEDULING MUST BE MADE PRIOR TO 5:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL. ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.

COE C13

241638

GRANITE RIVER RAILROAD
WEIGHMASTER FORM
CULLINAN RANCH, CALIFORNIA

SITE	TICKET	GRID
101	623340	
WEIGHMASTER		
DATE IN		
10/10/86		
TIME IN		
10:00 AM		
DATE OUT		
10/10/86		
TIME OUT		
10:00 AM		
VEHICLE	ROLL OFF	
WHEELS		
REFERENCE	ORIGIN	
	CULLINAN RANCH	

Customer Name/Address: 401 Cullinan Ranch Rd.
Received Date: Weight: 344,000 lbs.
Last Update: 09/10/86 10:00 AM

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
1.00	LB	COMMODITY FUEL				
1.00	LB	ENVIRONMENTAL FEE				
1.00	LB	FUEL RECOVERY FEE				

NET AMOUNT

TENDERED

CHANGE

CHECK NO.

SIGNATURE 



ATTACHMENT B
CHEMICAL ANALYTICAL DATA

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PORLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210
ORELAP#: OR100021

August 19, 2008

Joey Hickey
GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

RE: Cullinan Ranch

Enclosed are the results of analyses for samples received by the laboratory on 08/09/08 12:00.
The following list is a summary of the Work Orders contained in this report, generated on 08/19/08
15:51.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>Project Number</u>
PRH0318	Cullinan Ranch	0758-137-01

TestAmerica Portland



Estella Rieben, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
08/19/08 15:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP-S-12 (0.5)	PRH0318-01	Soil	08/06/08 11:20	08/09/08 12:00
TP-S-11 (0.5)	PRH0318-02	Soil	08/06/08 12:00	08/09/08 12:00
TP-S-10 (0.5)	PRH0318-03	Soil	08/06/08 12:30	08/09/08 12:00
TP-S-6 (0.5)	PRH0318-04	Soil	08/06/08 15:30	08/09/08 12:00
TP-P-6 (0.5)	PRH0318-05	Soil	08/06/08 16:30	08/09/08 12:00
TP-S-3 (0.5)	PRH0318-06	Soil	08/06/08 18:00	08/09/08 12:00
TP-P-9 (0.5)	PRH0318-07	Soil	08/06/08 18:30	08/09/08 12:00
TP-P-8 (0.5)	PRH0318-08	Soil	08/07/08 09:00	08/09/08 12:00
TP-P-7 (0.5)	PRH0318-09	Soil	08/07/08 11:00	08/09/08 12:00

TestAmerica Portland



Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: Cullinan Ranch
Project Number: 0758-137-01
Project Manager: Joey Hickey

Report Created:
08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRII0318-01 (TP-S-12 (0.5))				Soil						Sampled: 08/06/08 11:20
Aldrin	EPA 8081A	ND	---	0.0115	mg/kg dry	Ix	8080317	08/11/08 13.15	08/13/08 15.51	
alpha-BHC	-	ND	---	0.0115	-	-	-	-	-	
beta-BHC	-	ND	---	0.0115	-	-	-	-	-	
delta-BHC	-	ND	---	0.0115	-	-	-	-	-	
gamma-BHC (Lindane)	-	ND	---	0.0115	-	-	-	-	-	
gamma-Chlordane	-	ND	---	0.0115	-	-	-	-	-	
alpha-Chlordane	-	ND	---	0.0115	-	-	-	-	-	
Chlordane (tech)	-	ND	---	0.257	-	-	-	-	-	
4,4'-DDD	-	ND	---	0.0115	-	-	-	-	-	
4,4'-DDE	-	ND	---	0.0115	-	-	-	-	-	
4,4'-DDT	-	ND	---	0.0115	-	-	-	-	-	
Dieldrin	-	ND	---	0.0115	-	-	-	-	-	
Endosulfan I	-	ND	---	0.0115	-	-	-	-	-	
Endosulfan II	-	ND	---	0.0115	-	-	-	-	-	
Endosulfan sulfate	-	ND	---	0.0115	-	-	-	-	-	
Endrin	-	ND	---	0.0115	-	-	-	-	-	
Endrin aldehyde	-	ND	---	0.0115	-	-	-	-	-	
Endrin ketone	-	ND	---	0.0115	-	-	-	-	-	
Heptachlor	-	ND	---	0.0115	-	-	-	-	-	
Heptachlor epoxide	-	ND	---	0.0115	-	-	-	-	-	
Methoxychlor	-	ND	---	0.0115	-	-	-	-	-	
Toxaphene	-	ND	---	0.342	-	-	-	-	-	
Surrogate(s):	2,4,5,6-Tetrachloro-m-xylene			88.2%	36 - 140 %	-				

PRII0318-02 (TP-S-11 (0.5))				Soil						Sampled: 08/06/08 12:00
Aldrin	EPA 8081A	ND	---	0.0126	mg/kg dry	Ix	8080317	08/11/08 13.15	08/13/08 16:17	
alpha-BHC	-	ND	---	0.0126	-	-	-	-	-	
beta-BHC	-	ND	---	0.0126	-	-	-	-	-	
delta-BHC	-	ND	---	0.0126	-	-	-	-	-	
gamma-BHC (Lindane)	-	ND	---	0.0126	-	-	-	-	-	
gamma-Chlordane	-	ND	---	0.0126	-	-	-	-	-	
alpha-Chlordane	-	ND	---	0.0126	-	-	-	-	-	
Chlordane (tech)	-	ND	---	0.283	-	-	-	-	-	
4,4'-DDD	-	ND	---	0.0126	-	-	-	-	-	
4,4'-DDE	-	ND	---	0.0126	-	-	-	-	-	
4,4'-DDT	-	0.0248	---	0.0126	-	-	-	-	-	

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: Cullinan Ranch
Project Number: 0758-137-01
Project Manager: Joey Hickey

Report Created:
08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRII0318-02 (TP-S-11 (0.5))				Soil		Sampled: 08/06/08 12:00				
Dieldrin	EPA 8081A	ND	---	0.0126	mg/kg dry	1x	8080317	08/11/08 13:15	08/13/08 16:17	
Endosulfan I	-	ND	---	0.0126	-	-	-	-	-	
Endosulfan II	-	ND	---	0.0126	-	-	-	-	-	
Endosulfan sulfate	-	ND	---	0.0126	-	-	-	-	-	
Endrin	-	ND	---	0.0126	-	-	-	-	-	
Endrin aldehyde	-	ND	---	0.0126	-	-	-	-	-	
Endrin ketone	-	ND	---	0.0126	-	-	-	-	-	
Heptachlor	-	ND	---	0.0126	-	-	-	-	-	
Heptachlor epoxide	-	ND	---	0.0126	-	-	-	-	-	
Methoxychlor	-	ND	---	0.0126	-	-	-	-	-	
Toxaphene	-	ND	---	0.377	-	-	-	-	-	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene				80.7%	36 - 140 %	-				
PRII0318-03 (TP-S-10 (0.5))				Soil		Sampled: 08/06/08 12:30				
Aldrin	EPA 8081A	ND	---	0.0127	mg/kg dry	1x	8080317	08/11/08 13:15	08/13/08 16:43	
alpha-BHC	-	ND	---	0.0127	-	-	-	-	-	
beta-BHC	-	ND	---	0.0127	-	-	-	-	-	
delta-BHC	-	ND	---	0.0127	-	-	-	-	-	
gamma-BHC (Lindane)	-	ND	---	0.0127	-	-	-	-	-	
gamma-Chlordane	-	ND	---	0.0127	-	-	-	-	-	
alpha-Chlordane	-	ND	---	0.0127	-	-	-	-	-	
Chlordane (tech)	-	ND	---	0.285	-	-	-	-	-	
4,4'-DDD	-	ND	---	0.0127	-	-	-	-	-	
4,4'-DDE	-	ND	---	0.0127	-	-	-	-	-	
4,4'-DDT	-	ND	---	0.0127	-	-	-	-	-	
Dieldrin	-	ND	---	0.0127	-	-	-	-	-	
Endosulfan I	-	ND	---	0.0127	-	-	-	-	-	
Endosulfan II	-	ND	---	0.0127	-	-	-	-	-	
Endosulfan sulfate	-	ND	---	0.0127	-	-	-	-	-	
Endrin	-	ND	---	0.0127	-	-	-	-	-	
Endrin aldehyde	-	ND	---	0.0127	-	-	-	-	-	
Endrin ketone	-	ND	---	0.0127	-	-	-	-	-	
Heptachlor	-	ND	---	0.0127	-	-	-	-	-	
Heptachlor epoxide	-	ND	---	0.0127	-	-	-	-	-	
Methoxychlor	-	ND	---	0.0127	-	-	-	-	-	
Toxaphene	-	ND	---	0.381	-	-	-	-	-	

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRH0318-03 (TP-S-10 (0.5))				Soil		Sampled: 08/06/08 12:30				
<i>Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene</i>				82.7%		36 - 140 %	1x			08/13/08 16:43
PRH0318-04 (TP-S-6 (0.5))				Soil		Sampled: 08/06/08 15:30				
Aldrin	EPA 8081A	ND	---	0.00993	mg/kg dry	1x	8080317	08/11/08 13:15	08/13/08 17:09	
alpha-BHC		ND	---	0.00993	-	-	-	-	-	
beta-BHC		ND	---	0.00993	-	-	-	-	-	
delta-BHC		ND	---	0.00993	-	-	-	-	-	
gamma-BHC (Lindane)		ND	---	0.00993	-	-	-	-	-	
gamma-Chlordane		ND	---	0.00993	-	-	-	-	-	
alpha-Chlordane		ND	---	0.00993	-	-	-	-	-	
Chlordane (tech)		ND	---	0.222	-	-	-	-	-	
4,4'-DDD		ND	---	0.00993	-	-	-	-	-	
4,4'-DDE		ND	---	0.00993	-	-	-	-	-	
4,4'-DDT		ND	---	0.00993	-	-	-	-	-	
Dieldrin		ND	---	0.00993	-	-	-	-	-	
Endosulfan I		ND	---	0.00993	-	-	-	-	-	
Endosulfan II		ND	---	0.00993	-	-	-	-	-	
Endosulfan sulfate		ND	---	0.00993	-	-	-	-	-	
Endrin		ND	---	0.00993	-	-	-	-	-	
Endrin aldehyde		ND	---	0.00993	-	-	-	-	-	
Endrin ketone		ND	---	0.00993	-	-	-	-	-	
Heptachlor		ND	---	0.00993	-	-	-	-	-	
Heptachlor epoxide		ND	---	0.00993	-	-	-	-	-	
Methoxychlor		ND	---	0.00993	-	-	-	-	-	
Toxaphene		ND	---	0.297	-	-	-	-	-	
<i>Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene</i>				87.8%		36 - 140 %	-			
PRH0318-05 (TP-P-6 (0.5))				Soil		Sampled: 08/06/08 16:30				
Aldrin	EPA 8081A	ND	---	0.0110	mg/kg dry	1x	8080317	08/11/08 13:15	08/13/08 18:03	
alpha-BHC		ND	---	0.0110	-	-	-	-	-	
beta-BHC		ND	---	0.0110	-	-	-	-	-	
delta-BHC		ND	---	0.0110	-	-	-	-	-	
gamma-BHC (Lindane)		ND	---	0.0110	-	-	-	-	-	
gamma-Chlordane		ND	---	0.0110	-	-	-	-	-	
alpha-Chlordane		ND	---	0.0110	-	-	-	-	-	
Chlordane (tech)		ND	---	0.246	-	-	-	-	-	

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRH0318-05 (TP-P-6 (0.5))				Soil			Sampled: 08/06/08 16:30			
4,4'-DDD	EPA 8081A	ND	—	0.0110	mg/kg dry	1x	8080317	08/11/08 13:15	08/13/08 18:08	
4,4'-DDE		ND	—	0.0110		—	—	—	—	
4,4'-DDT		ND	—	0.0220		2x	—	—	08/15/08 17:06	
Dieldrin		ND	—	0.0110		1x	—	—	08/13/08 18:08	
Endosulfan I		ND	—	0.0110		—	—	—	—	
Endosulfan II		ND	—	0.0110		—	—	—	—	
Endosulfan sulfate		ND	—	0.0110		—	—	—	—	
Endrin		ND	—	0.0110		—	—	—	—	
Endrin aldehyde		ND	—	0.0110		—	—	—	—	
Endrin ketone		ND	—	0.0110		—	—	—	—	
Heptachlor		ND	—	0.0110		—	—	—	—	
Heptachlor epoxide		ND	—	0.0110		—	—	—	—	
Methoxychlor		0.0492	—	0.0110		—	—	—	—	
Toxaphene		ND	—	0.328		—	—	—	—	

Surrogate(s): **2,4,5,6-Tetrachloro-m-xylene**

83.6%

36 - 140.5%

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRH0318-06 (TP-S-3 (0.5))				Soil			Sampled: 08/06/08 18:00			
Aldrin	EPA 8081A	ND	—	0.0128	mg/kg dry	1x	8080317	08/11/08 13:15	08/15/08 11:28	
alpha-BHC		ND	—	0.0128		—	—	—	—	
beta-BHC		ND	—	0.0128		—	—	—	—	
delta-BHC		ND	—	0.0128		—	—	—	—	
gamma-BHC (Lindane)		ND	—	0.0128		—	—	—	—	
gamma-Chlordane		ND	—	0.0128		—	—	—	—	
alpha-Chlordane		ND	—	0.0128		—	—	—	—	
Chlordane (tech)		ND	—	0.287		—	—	—	—	
4,4'-DDD		ND	—	0.0128		—	—	—	—	
4,4'-DDE		ND	—	0.0128		—	—	—	—	
4,4'-DDT		ND	—	0.0128		—	—	—	—	
Dieldrin		ND	—	0.0128		—	—	—	—	
Endosulfan I		ND	—	0.0128		—	—	—	—	
Endosulfan II		ND	—	0.0128		—	—	—	—	
Endosulfan sulfate		ND	—	0.0128		—	—	—	—	
Endrin		ND	—	0.0128		—	—	—	—	
Endrin aldehyde		ND	—	0.0128		—	—	—	—	
Endrin ketone		ND	—	0.0128		—	—	—	—	
Heptachlor		ND	—	0.0128		—	—	—	—	

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
 15055 SW Sequoia Parkway, Suite 140
 Portland, OR 97224

Project Name: Cullinan Ranch
Project Number: 0758-137-01
Project Manager: Joey Hickey

Report Created:
 08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A
 TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRII0318-06 (TP-S-3 (0.5))				Soil		Sampled: 08/06/08 18:00				
Heptachlor epoxide	EPA 8081A	ND	---	0.0128	mg/kg dry	1x	8080317	08/11/08 13:15	08/15/08 11:28	
Methoxychlor	-	ND	---	0.0128	-	-	-	-	-	
Toxaphene	-	ND	---	0.383	-	-	-	-	-	
<i>Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene</i>				73.8%		36 - 140 %				
PRII0318-07 (TP-P-9 (0.5))				Soil		Sampled: 08/06/08 18:30				
Aldrin	EPA 8081A	ND	---	0.0108	mg/kg dry	1x	8080317	08/11/08 13:15	08/15/08 11:55	
alpha-BHC	-	ND	---	0.0108	-	-	-	-	-	
beta-BHC	-	ND	---	0.0108	-	-	-	-	-	
delta-BHC	-	ND	---	0.0108	-	-	-	-	-	
gamma-BHC (Lindane)	-	ND	---	0.0108	-	-	-	-	-	
gamma-Chlordane	-	ND	---	0.0108	-	-	-	-	-	
alpha-Chlordane	-	ND	---	0.0108	-	-	-	-	-	
Chlordane (tech)	-	ND	---	0.242	-	-	-	-	-	
4,4'-DDD	-	ND	---	0.0108	-	-	-	-	-	
4,4'-DDE	-	ND	---	0.0108	-	-	-	-	-	
4,4'-DDT	-	ND	---	0.0108	-	-	-	-	-	
Dieldrin	-	ND	---	0.0108	-	-	-	-	-	
Endosulfan I	-	ND	---	0.0108	-	-	-	-	-	
Endosulfan II	-	ND	---	0.0108	-	-	-	-	-	
Endosulfan sulfate	-	ND	---	0.0108	-	-	-	-	-	
Endrin	-	ND	---	0.0108	-	-	-	-	-	
Endrin aldehyde	-	ND	---	0.0108	-	-	-	-	-	
Endrin ketone	-	ND	---	0.0108	-	-	-	-	-	
Heptachlor	-	ND	---	0.0108	-	-	-	-	-	
Heptachlor epoxide	-	ND	---	0.0108	-	-	-	-	-	
Methoxychlor	-	ND	---	0.0108	-	-	-	-	-	
Toxaphene	-	ND	---	0.323	-	-	-	-	-	
<i>Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene</i>				74.1%		36 - 140 %				

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
 15055 SW Sequoia Parkway, Suite 140
 Portland, OR 97224

Project Name: **Cullinan Ranch**
 Project Number: **0758-137-01**
 Project Manager: **Joey Hickey**

Report Created:
08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A
 TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRIH0318-08 (TP-P-8 (0.5))				Soil			Sampled: 08/07/08 09:00			
Aldrin	EPA 8081A	ND	---	0.0115	mg/kg dry	1x	8080317	08/11/08 13:15	08/16/08 14:14	
alpha-BHC	-	ND	---	0.0115	-	-	-	-	-	
beta-BHC	-	ND	---	0.0115	-	-	-	-	-	
delta-BHC	-	ND	---	0.0115	-	-	-	-	-	
gamma-BHC (Lindane)	-	ND	---	0.0115	-	-	-	-	-	
gamma-Chlordane	-	ND	---	0.0115	-	-	-	-	-	
alpha-Chlordane	-	ND	---	0.0115	-	-	-	-	-	
Chlordane (tech)	-	ND	---	0.258	-	-	-	-	-	
4,4'-DDD	-	ND	---	0.0115	-	-	-	-	-	
4,4'-DDE	-	ND	---	0.0115	-	-	-	-	-	
4,4'-DDT	-	ND	---	0.0115	-	-	-	-	-	
Dieldrin	-	ND	---	0.0115	-	-	-	-	-	
Endosulfan I	-	ND	---	0.0115	-	-	-	-	-	
Endosulfan II	-	ND	---	0.0115	-	-	-	-	-	
Endosulfan sulfate	-	ND	---	0.0115	-	-	-	-	-	
Endrin	-	ND	---	0.0115	-	-	-	-	-	
Endrin aldehyde	-	ND	---	0.0115	-	-	-	-	-	
Endrin ketone	-	ND	---	0.0115	-	-	-	-	-	
Heptachlor	-	ND	---	0.0115	-	-	-	-	-	
Heptachlor epoxide	-	ND	---	0.0115	-	-	-	-	-	
Methoxychlor	-	ND	---	0.0115	-	-	-	-	-	
Toxaphene	-	ND	---	0.344	-	-	-	-	-	

Surrogate(s): **2,4,5,6-Tetrachloro-m-xylene**

83.5%

36 - 140 %

PRIH0318-09 (TP-P-7 (0.5))

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
Aldrin	EPA 8081A	ND	---	0.0123	mg/kg dry	1x	8080317	08/11/08 13:15	08/16/08 14:40	
alpha-BHC	-	ND	---	0.0123	-	-	-	-	-	
beta-BHC	-	ND	---	0.0123	-	-	-	-	-	
delta-BHC	-	ND	---	0.0123	-	-	-	-	-	
gamma-BHC (Lindane)	-	ND	---	0.0123	-	-	-	-	-	
gamma-Chlordane	-	ND	---	0.0123	-	-	-	-	-	
alpha-Chlordane	-	ND	---	0.0123	-	-	-	-	-	
Chlordane (tech)	-	ND	---	0.276	-	-	-	-	-	
4,4'-DDD	-	ND	---	0.0123	-	-	-	-	-	
4,4'-DDE	-	ND	---	0.0123	-	-	-	-	-	
4,4'-DDT	-	ND	---	0.0123	-	-	-	-	-	

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Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRII0318-09 (TP-P-7 (0.5))										
Dieldrin	EPA 8081A	ND	---	0.0123	mg/kg dry	1x	8080317	08/11/08 13:15	08/16/08 14:40	
Endosulfan I	-	ND	---	0.0123	-	-	-	-	-	
Endosulfan II	-	ND	---	0.0123	-	-	-	-	-	
Endosulfan sulfate	-	ND	---	0.0123	-	-	-	-	-	
Endrin	-	ND	---	0.0123	-	-	-	-	-	
Endrin aldehyde	-	ND	---	0.0123	-	-	-	-	-	
Endrin ketone	-	ND	---	0.0123	-	-	-	-	-	
Heptachlor	-	ND	---	0.0123	-	-	-	-	-	
Heptachlor epoxide	-	ND	---	0.0123	-	-	-	-	-	
Methoxychlor	-	ND	---	0.0123	-	-	-	-	-	
Toxaphene	-	ND	---	0.368	-	-	-	-	-	

Surrogate(s): **2,4,5,6-Tetrachloro-m-xylene**

81.2%

36 - 140%

-

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Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
08/19/08 15:51

Percent Dry Weight (Solids) per Standard Methods
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRIH0318-01 (TP-S-12 (0.5))				Soil				Sampled: 08/06/08 11:20		
% Solids	NCA SOP	58.1	---	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	
PRIH0318-02 (TP-S-11 (0.5))				Soil				Sampled: 08/06/08 12:00		
% Solids	NCA SOP	52.7	---	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	
PRIH0318-03 (TP-S-10 (0.5))				Soil				Sampled: 08/06/08 12:30		
% Solids	NCA SOP	52.0	----	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	
PRIH0318-04 (TP-S-6 (0.5))				Soil				Sampled: 08/06/08 15:30		
% Solids	NCA SOP	66.8	---	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	
PRIH0318-05 (TP-P-6 (0.5))				Soil				Sampled: 08/06/08 16:30		
% Solids	NCA SOP	60.6	----	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	
PRIH0318-06 (TP-S-3 (0.5))				Soil				Sampled: 08/06/08 18:00		
% Solids	NCA SOP	52.2	----	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	
PRIH0318-07 (TP-P-9 (0.5))				Soil				Sampled: 08/06/08 18:30		
% Solids	NCA SOP	62.0	----	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	
PRIH0318-08 (TP-P-8 (0.5))				Soil				Sampled: 08/07/08 09:00		
% Solids	NCA SOP	57.6	----	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	
PRIH0318-09 (TP-P-7 (0.5))				Soil				Sampled: 08/07/08 11:00		
% Solids	NCA SOP	54.3	----	0.0100	% by Weight	1x	8080396	08/13/08 09:39	08/13/08 09:39	

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GeoEngineers, Inc.
 15055 SW Sequoia Parkway, Suite 140
 Portland, OR 97224

Project Name: **Cullinan Ranch**
 Project Number: **0758-137-01**
 Project Manager: **Joey Hickey**

Report Created:
08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results
TestAmerica Portland

QC Batch: 8080317

Soil Preparation Method: EPA 3550

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8080317-BLK1)														
Aldrin	EPA 8081A	ND	---	0.00664	mg/kg wet	Ix	--	--	--	--	--	--	--	08/13/08 13:05
alpha-BHC	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
beta-BHC	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
delta-BHC	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
gamma-BHC (Lindane)	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
gamma-Chlordane	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
alpha-Chlordane	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Chlordane (tech)	-	ND	---	0.149	-	-	--	--	--	--	--	--	--	-
4,4'-DDD	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
4,4'-DDE	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
4,4'-DDT	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Dieldrin	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Endosulfan I	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Endosulfan II	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Endosulfan sulfate	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Endrin	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Endrin aldehyde	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Endrin ketone	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Heptachlor	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Heptachlor epoxide	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Methoxychlor	-	ND	---	0.00664	-	-	--	--	--	--	--	--	--	-
Toxaphene	-	ND	---	0.198	-	-	--	--	--	--	--	--	--	-
<i>Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene</i>		Recovery:	97.1%		Limits	36-140%	-							08/13/08 13:05
LCS (8080317-BS1)														
Aldrin	EPA 8081A	0.0295	---	0.00668	mg/kg wet	Ix	--	0.0332	88.8% (64-136)	--	--	--	08/13/08 13:31	
gamma-BHC (Lindane)	-	0.0303	---	0.00668	-	-	--	-	91.2% (62-140)	--	--	--	-	
4,4'-DDT	-	0.0295	---	0.00668	-	-	--	-	88.8% (65-130)	--	--	--	-	
Dieldrin	-	0.0291	---	0.00668	-	-	--	-	87.6% (70-135)	--	--	--	-	
Endrin	-	0.0294	---	0.00668	-	-	--	-	88.6% (65-135)	--	--	--	-	
Heptachlor	-	0.0284	---	0.00668	-	-	--	-	85.4% (48-124)	--	--	--	-	
<i>Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene</i>		Recovery:	98.3%		Limits	36-140%	-							08/13/08 13:31

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: 0758-137-01
Project Manager: Joey Hickey

Report Created:
08/19/08 15:51

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results
TestAmerica Portland

QC Batch: 8080317 Soil Preparation Method: EPA 3550

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	% (Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (8080317-MS1)														
Aldrin	EPA 8081A	0.0474	---	0.0574	mg/kg dry	5x	ND	0.0572	83.0%	(64-136)	--	--	08/13/08 14:32	
gamma-BHC (Lindane)	-	0.0479	---	0.0574	-	-	ND	-	83.8%	(62-140)	--	--	-	
4,4'-DDT	-	0.0494	---	0.0574	-	-	ND	-	86.5%	(65-130)	--	--	-	
Dieldrin	-	0.0474	---	0.0574	-	-	ND	-	83.0%	(70-135)	--	--	-	
Endrin	-	0.0482	---	0.0574	-	-	ND	-	84.3%	(65-135)	--	--	-	
Heptachlor	-	0.0441	---	0.0574	-	-	ND	-	77.1%	(48-124)	--	--	-	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		Recovery:	76.2%	Limits: 36-140%				Extracted: 08/11/08 22:25						
Matrix Spike Dup (8080317-MSD1)														
Aldrin	EPA 8081A	0.0479	---	0.0574	mg/kg dry	5x	ND	0.0571	83.8%	(64-136)	1.05%	(50)	08/13/08 14:58	
gamma-BHC (Lindane)	-	0.0490	---	0.0574	-	-	ND	-	85.7%	(62-140)	2.27%	-	-	
4,4'-DDT	-	0.0506	---	0.0574	-	-	ND	-	88.5%	(65-130)	2.25%	-	-	
Dieldrin	-	0.0484	---	0.0574	-	-	ND	-	84.6%	(70-135)	2.00%	-	-	
Endrin	-	0.0495	---	0.0574	-	-	ND	-	86.6%	(65-135)	2.72%	-	-	
Heptachlor	-	0.0448	---	0.0574	-	-	ND	-	78.4%	(48-124)	1.70%	-	-	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene		Recovery:	82.9%	Limits: 36-140%				Extracted: 08/11/08 22:25						

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
 15055 SW Sequoia Parkway, Suite 140
 Portland, OR 97224

Project Name: **Cullinan Ranch**
 Project Number: **0758-137-01**
 Project Manager: **Joey Hickey**

Report Created:
08/19/08 15:51

Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results
 TestAmerica Portland

QC Batch: **8080396** Other dry Preparation Method: **Dry Weight**

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (8080396-DUP1)							QC Source: PRH0069-07						Extracted: 09/13/08 09:39	
% Solids	NCA SOP	89.1	---	0.0100	% by Weight	1x	88.3	-	--	--	0.902%	(20)	08/13/08 09:39	

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15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
08/19/08 15.51

Notes and Definitions

Report Specific Notes:

RLI - Reporting limit raised due to sample matrix effects.

Laboratory Reporting Conventions:

- DET** - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND** - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA** - Not Reported / Not Available
- dry** - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet** - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD** - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries)
- MRL** - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL*** - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B.
*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil** - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits** - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature** - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*.
Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory.
Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland



Estella Rieben, Project Manager

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THE LEADER IN ENVIRONMENTAL TESTING

11720 North Creek Pkwy N Suite 400, Bothell, WA 98011-8244
 11922 E. First Ave, Spokane, WA 99206-5302
 9405 SW Nimbus Ave Beaverton, OR 97008-7145
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 509-924-9200 FAX 924-9290
 503-906-9200 FAX 906-9210
 907-563-9200 FAX 563-9210

Work Order #: PRH0318

CHAIN OF CUSTODY REPORT

CLIENT: GeoEngineers		INVOICE TO: GeoEngineers	TURNAROUND REQUEST	
REPORT TO: Joey Hickey			in Business Days*	
ADDRESS: 5055 SW Sequoia Pkwy, Suite 140 Portland, OR 97224		PO. NUMBER:	<input checked="" type="checkbox"/> 7 <input type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> 6 <small>STD</small>	
PHONE: 503-624-9274 FAX:		PRESERVATIVE:	<input checked="" type="checkbox"/> 5 <input type="checkbox"/> 4 <input type="checkbox"/> 3 <input type="checkbox"/> 2 <input type="checkbox"/> 1 <input type="checkbox"/> 6 <small>STD</small>	
PROJECT NAME: Cullinan Ranch		-	<input type="checkbox"/> OTHER <small>Specify:</small>	
PROJECT NUMBER: 0758-137-01		REQUESTED ANALYSES	<small>* Turnaround Requests less than standard may incur Rush Charges.</small>	
SAMPLED BY: CJR			MATRIX (W.S.O)	# OF CONT.
CLIENT SAMPLE IDENTIFICATION	SAMPLING DATE/TIME	Preservative	LOCATION/COMMENTS	TA WO ID
TP-S-12 (0.5)	8/6/08 1120	X	S 2	
TP-S-11 (0.5)	1200			
TP-S-10 (0.5)	1230			
TP-S-6 (0.5)	1530			
TP-P-6 (0.5)	1630			
TP-S-3 (0.5)	1800			
TP-P-9 (0.5)	1830			
TP-P-8 (0.5)	8/7/08 0900			
TP-P-7 (0.5)	8/7/08 1100	▼		
10				
RELEASED BY: <i>Chris Rho</i>	FIRM: GEI	DATE: 8/8/08	RECEIVED BY: <i>Peggy Siegfried</i>	DATE: 8/9/08
PRINT NAME: Chris Rho		TIME: 1100	PRINT NAME: Peggy Siegfried	TIME: 1200
RELEASED BY: <i>Peggy Siegfried</i>	FIRM: TAP			
PRINT NAME: Peggy Siegfried				
ADDITIONAL REMARKS			TEMP: 23	PAGE: 08

TAL-100001086

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PORLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210
ORELAP# OR100021

October 14, 2008

Joey Hickey
GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

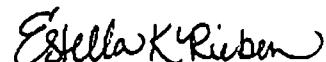
RE: Cullinan Ranch

Enclosed are the results of analyses for samples received by the laboratory on 10/01/08 09:45.
The following list is a summary of the Work Orders contained in this report, generated on 10/14/08
15:58.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>Project Number</u>
PRJ0022	Cullinan Ranch	0758-137-01

TestAmerica Portland



Estella Rieben, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full without the written approval of the laboratory.

GeoEngineers, Inc.15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: Cullinan Ranch

Project Number: 0758-137-01
Project Manager: Joey HickeyReport Created:
10/14/08 15:58**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP-S-11b	PRJ0022-01	Soil	09/30/08 13:30	10/01/08 09:45
TP-P-10	PRJ0022-02	Soil	09/30/08 14:15	10/01/08 09:45

TestAmerica Portland



Estella Rieben, Project Manager

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GeoEngineers, Inc. 15055 SW Sequoia Parkway, Suite 140 Portland, OR 97224	Project Name: Cullinan Ranch	Report Created:
	Project Number: 0758-137-01 Project Manager: Joey Hickey	10/14/08 15:58

Organochlorine Pesticides per EPA Method 8081A
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRJ0022-01 (TP-S-11b)				Soil					Sampled: 09/30/08 13:30	
Aldrin	EPA 8081A	ND	----	0.0128	mg/kg dry	1x	S100118	10/03/08 15:00	10/11/08 12:07	
alpha-BHC	-	ND	----	0.0128	-	-	-	-	-	
beta-BHC	-	ND	----	0.0128	-	-	-	-	-	
delta-BHC	-	ND	----	0.0128	-	-	-	-	-	
gamma-BHC (Lindane)	-	ND	----	0.0128	-	-	-	-	-	
gamma-Chlordane	-	ND	----	0.0128	-	-	-	-	-	
alpha-Chlordane	-	ND	----	0.0128	-	-	-	-	-	
Chlordane (tech)	-	ND	----	0.287	-	-	-	-	-	
4,4'-DDD	-	ND	----	0.0128	-	-	-	-	-	
4,4'-DDE	-	ND	----	0.0128	-	-	-	-	-	
4,4'-DDT	-	ND	----	0.0128	-	-	-	-	-	
Dieldrin	-	ND	----	0.0128	-	-	-	-	-	
Endosulfan I	-	ND	----	0.0128	-	-	-	-	-	
Endosulfan II	-	ND	----	0.0128	-	-	-	-	-	
Endosulfan sulfate	-	ND	----	0.0128	-	-	-	-	-	
Endrin	-	ND	----	0.0128	-	-	-	-	-	
Endrin aldehyde	-	ND	----	0.0128	-	-	-	-	-	
Endrin ketone	-	ND	----	0.0128	-	-	-	-	-	
Heptachlor	-	ND	----	0.0128	-	-	-	-	-	
Heptachlor epoxide	-	ND	----	0.0128	-	-	-	-	-	
Methoxychlor	-	ND	----	0.0128	-	-	-	-	-	
Toxaphene	-	ND	----	0.382	-	-	-	-	-	

Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene 94.3% 36 - 140 % " "

PRJ0022-02 (TP-P-10)		Soil					Sampled: 09/30/08 14:15	
Aldrin	EPA 8081A	ND	----	0.0117	mg/kg dry	1x	S100118	10/03/08 15:00
alpha-BHC	-	ND	----	0.0117	-	-	-	-
beta-BHC	-	ND	----	0.0117	-	-	-	-
delta-BHC	-	ND	----	0.0117	-	-	-	-
gamma-BHC (Lindane)	-	ND	----	0.0117	-	-	-	-
gamma-Chlordane	-	0.0172	----	0.0117	-	-	-	-
alpha-Chlordane	-	0.0158	----	0.0117	-	-	-	-
Chlordane (tech)	-	ND	----	0.261	-	-	-	-
4,4'-DDD	-	0.0874	----	0.0117	-	-	-	-
4,4'-DDE	-	0.0630	----	0.0117	-	-	-	-
4,4'-DDT	-	0.132	----	0.0583	-	5x	-	10/11/08 13:52

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Estella Rieben, Project Manager

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GeoEngineers, Inc. 15055 SW Sequoia Parkway, Suite 140 Portland, OR 97224	Project Name: Cullinan Ranch	Report Created:
	Project Number: 0758-137-01 Project Manager: Joey Hickey	10/14/08 15:58

Organochlorine Pesticides per EPA Method 8081A
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRJ0022-02 (TP-P-10)										
Heptachlor epoxide	EPA 8081A	ND	----	0.0117	mg/kg dry	1x	8100118	10/03/08 15:00	10/13/08 13:34	
Heptachlor		ND	----	0.0117		-	-	-	-	
Heptachlor epoxide		ND	----	0.0117		-	-	-	-	
Endosulfan I		ND	----	0.0117		-	-	-	-	
Endosulfan II		ND	----	0.0117		-	-	-	-	
Endosulfan sulfate		ND	----	0.0117		-	-	-	-	
Endrin		ND	----	0.0117		-	-	-	-	
Endrin aldehyde		ND	----	0.0117		-	-	-	-	
Endrin ketone		ND	----	0.0117		-	-	-	-	
Toxaphene		ND	----	0.0117		-	-	-	-	
Dieldrin		ND	----	0.0117	mg/kg dry	1x	8100118	10/03/08 15:00	10/13/08 13:34	
Methoxychlor		0.620	----	0.233		20x	-	-	10/11/08 14:18	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene			96.0%		36 - 140 %		-	-		

TestAmerica Portland

Estella Rieben, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full without the written approval of the laboratory.

GeoEngineers, Inc. 15055 SW Sequoia Parkway, Suite 140 Portland, OR 97224	Project Name: Cullinan Ranch	Report Created:
	Project Number: 0758-137-01 Project Manager: Joey Hickey	10/14/08 15:58

Percent Dry Weight (Solids) per Standard Methods
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRJ0022-01 (TP-S-11b)		Soil		Sampled: 09/30/08 13:30						
% Solids	NCA SOP	52.2	-----	0.0100	% by Weight	1x	8100140	10/03/08 15:42	10/03/08 15:42	
PRJ0022-02 (TP-P-10)		Soil		Sampled: 09/30/08 14:15						
% Solids	NCA SOP	57.1	-----	0.0100	% by Weight	1x	8100140	10/03/08 15:42	10/03/08 15:42	

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: Cullinan Ranch
Project Number: 0758-137-01
Project Manager: Joey Hickey

Report Created:
10/14/08 15:58

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results
TestAmerica Portland

QC Batch: 8100118 Soil Preparation Method: EPA 3550

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8100118-BLK1)														
Aldrin	EPA 8081A	ND	---	0.00667	mg/kg wet	1x	--	--	--	--	--	--	--	10/08/08 12 18
alpha-BHC	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
beta-BHC	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
delta-BHC	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
gamma-BHC (Lindane)	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
gamma-Chlordane	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
alpha-Chlordane	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Chlordane (tech)	-	ND	---	0.149	-	-	--	--	--	--	--	--	--	-
4,4'-DDD	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
4,4'-DDE	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
4,4'-DDT	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Dieldrin	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Endosulfan I	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Endosulfan II	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Endosulfan sulfate	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Endrin	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Endrin aldehyde	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Endrin ketone	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Heptachlor	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Heptachlor epoxide	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Methoxychlor	-	ND	---	0.00667	-	-	--	--	--	--	--	--	--	-
Toxaphene	-	ND	---	0.199	-	-	--	--	--	--	--	--	--	-
Surrogate(s)		2,4,5,6-Tetrachloro-m-xylene	Recovery	71.8%		Limits	36-140%	"						10/08/08 12 18
LCS (8100118-BS1)														
Aldrin	EPA 8081A	0.0256	---	0.00666	mg/kg wet	1x	--	0.0332	77.2%	(64-136)	--	--	--	10/08/08 12:44
gamma-BHC (Lindane)	-	0.0264	---	0.00666	-	-	--	-	79.5%	(62-140)	--	--	--	-
4,4'-DDD	-	0.0261	---	0.00666	-	-	--	-	78.8%	(65-130)	--	--	--	-
Dieldrin	-	0.0262	---	0.00666	-	-	--	-	78.9%	(70-135)	--	--	--	-
Endrin	-	0.0261	---	0.00666	-	-	--	-	78.7%	(65-135)	--	--	--	-
Heptachlor	-	0.0262	---	0.00666	-	-	--	-	78.9%	(48-124)	--	--	--	-
Surrogate(s)		2,4,5,6-Tetrachloro-m-xylene	Recovery	76.5%		Limits	36-140%	"						10/08/08 12 44

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
10/14/08 15:58

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results
TestAmerica Portland

QC Batch: 8100118 Soil Preparation Method: EPA 3550

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (8100118-MSI)														
Aldrin	EPA 8081A	0.0260	...	0.0738	mg/kg dry	10x	ND	0.0367	70.8%	(64-136)	--	--	10/08/08 16:19	
gamma-BHC (Lindane)	-	0.0283	...	0.0738	-	-	ND	-	77.2%	(62-140)	--	--	-	
4,4'-DDT	-	0.0298	...	0.0738	-	-	ND	-	81.1%	(65-130)	--	--	-	
Dieldrin	-	0.0255	...	0.0738	-	-	ND	-	69.6%	(70-135)	--	--	-	
Endrin	-	0.0252	...	0.0738	-	-	ND	-	68.7%	(65-135)	--	--	-	
Heptachlor	-	0.0273	...	0.0738	-	-	ND	-	74.5%	(48-124)	--	--	-	
<i>Surrogate(s)</i>	2,4,5,6-Tetrachloro-m-xylene	<i>Recovery</i>	82.8%		<i>Limits</i>	36-140%	"							10/08/08 16:19
Matrix Spike Dup (8100118-MSDI)														
Aldrin	EPA 8081A	0.0270	...	0.0736	mg/kg dry	10x	ND	0.0366	73.6%	(61-136)	3.68%	(50)	10/08/08 16:45	
gamma-BHC (Lindane)	-	0.0293	...	0.0736	-	-	ND	-	80.0%	(62-140)	3.36%	-	-	
4,4'-DDT	-	0.0314	...	0.0736	-	-	ND	-	85.6%	(65-130)	5.20%	-	-	
Dieldrin	-	0.0268	...	0.0736	-	-	ND	-	73.2%	(70-135)	4.84%	-	-	
Endrin	-	0.0264	...	0.0736	-	-	ND	-	72.2%	(65-135)	4.77%	-	-	
Heptachlor	-	0.0285	...	0.0736	-	-	ND	-	77.7%	(48-124)	4.01%	-	-	
<i>Surrogate(s)</i>	2,4,5,6-Tetrachloro-m-xylene	<i>Recovery</i>	85.4%		<i>Limits</i>	36-140%	"							10/08/08 16:45

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
10/14/08 15:58

Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results
TestAmerica Portland

QC Batch: 8100140 Other dry Preparation Method: Dry Weight

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (8100140-DUPI)					QC Source: PR10372-01					Extracted: 10/03/08 15:42				
% Solids	NCA SOP	78.5	...	0.0100	% by Weight	1x	76.2	2.97%	(20)	10/03/08 15:42	

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
10/14/08 15:58

Notes and Definitions

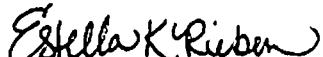
Report Specific Notes:

- M2 - The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate)
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries)
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table
- MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B.
*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature

TestAmerica Portland



Estella K. Rieben, Project Manager

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Laboratory: TestAmerica 9405 S W Nimbus Avenue, Beaverton, OR 97006-7132 (503) 906-9200 FAX (503) 906-9210

CHAIN OF CUSTODY REPORT

Work Order #:

PRJ0022

CLIENT Geotechnicians		INVOICE TO Geotechnicians		TURNAROUND REQUEST in Business Days			
REPORT TO Joey Hickey	Attention Joey Hickey			Organic and Inorganic Analyses	<input type="checkbox"/> R _S	<input type="checkbox"/> R _I	<input type="checkbox"/> R _C
ADDRESS 1505 SW Secular Parkway Suite 140:	15055 SW Secular Parkway Suite 140:			Petroleum Hydrocarbon Analyses	<input type="checkbox"/> R _S	<input type="checkbox"/> R _I	<input type="checkbox"/> R _C
Portland, Oregon 97224	Portland, Oregon 97224				<input type="checkbox"/> R _S	<input type="checkbox"/> R _I	<input type="checkbox"/> R _C
PROJECT NAME Cullinan Ranch	PHONE 503-624-9274	PO NUMBER 503-620-5940	REQUESTED PRESERVATIVE	OTHER			
PROJECT NUMBER 0758-137-01				Turnaround Requests less than standard may incur Rush Charges			
SAMPLED BY Greg Harris				MATRIX (W.S.Q)	# OF CONT	COMMENTS	LAB WO ID
REQUESTED ANALYSES							
CLIENT SAMPLE IDENTIFICATION	SAMPLE COLLECTION		EPA Method				
	DATE	TIME	0081A				
1 TP-S-11b	7/1/06	13:51	X				
2 TP-P-10	7/2/06	14:45	X				
3							
4							
5							
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RELINQUISHED BY *Greg Harris* FIRM *Geotech* DATE *7/2/06* TIME *11:00* PRINT NAME *Greg Harris* FIRM *Geotech* DATE *7/9/06* TIME *17:00*

RELINQUISHED BY *Greg Harris* FIRM *Geotech* DATE *7/9/06* TIME *17:00* PRINT NAME *Greg Harris* FIRM *Geotech* DATE *7/9/06* TIME *17:00*

RECEIVED BY *Greg Harris* FIRM *Geotech* DATE *7/9/06* TIME *17:00* PRINT NAME *Greg Harris* FIRM *Geotech* DATE *7/9/06* TIME *17:00*

TestAmerica Sample Receipt Checklist

Cooler IRP:

Received by:

(section A)

Date: 10/1/08

Time: 1:15

Initials: JMW

Unpacked by:

(section B)

Date: 10/1/08

Initials: JMW

Logged-in by:

Date: 10/1/08

Initials: JMW

Work Order No.: PRJ0022

Client: Geo engineers

Project: Culman Ranch

Temperature out of range:

Not enough Ice

No Ice

Ice Melted

Within 4 Hours

Other: _____

***ESI Clients (see Section C)

Cooler Temperature (IR): 17°C plastic glass NA (oil/air samples, ESI client)

Digi #1

Digi #2

Temperature Blank: _____ C

A Custody Seals: (#____)

Signature: Y N Dated: _____

None

Container Type:

#Cooler(s)

#Box(s)

None (#Other: _____)

Received from:

TA Courier

Senvoy

UPS

Fed Ex

Client

TDP

DHL

SDS

Mid-Valley

GS/TA

GS/Senvoy

Other: _____

Packing Material:

Bubble Bags

Styrofoam Cubbies

Peanuts

None (Other: _____)

Sample Status:

(If N circled, see NOD)

General:

Intact?

Y

N

Containers Match COC?

Y

N

none given

IDs Match COC?

Y

N

For Analyses Requested:

Cyanide Checked?

Y

N

NA

Correct Type & Preservation?

Y

N

Adequate Volume?

Y

N

Within Hold Time?

Y

N

Volatiles/ Oil Quality:

VOAs/ Syringes free of Headspace?

Y

N

NA

TB on COC? not provided

Y

N

NA

Metals:

HNO3 Preserved?

Y

N

NA

Dissolved Metals Filtered?

Y

N

NA

C ***ESI Clients Only:

Temperature Blank: ____ °C not provided Digi: # 1 #2

All preserved bottles checked Y N NA (voas/soils/all unp)

All preserved accordingly? Y N (see NOD) NA (voas/soils/all unp)

FED EX/ UPS: Was the tracking paper keepable? YES NO

If circled NO, what is the Tracking number? _____

FED EX

Goldstreak

UPS

DHL

Other: _____

Project Managers:

Comments: Culman Ranch Final EIS/EIR

153

PM Reviewed: _____

(Initial/Date)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

PORLAND, OR 9405 S.W. NIMBUS AVENUE
BEAVERTON, OR 97008-7132
ph: (503) 906.9200 fax: (503) 906.9210
ORELAP# OR100021

December 01, 2008

Joey Hickey
GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

RE: Cullinan Ranch

Enclosed are the results of analyses for samples received by the laboratory on 11/20/08 15:05.
The following list is a summary of the Work Orders contained in this report, generated on 12/01/08
12:23.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
PRK0738	Cullinan Ranch	0758-137-01

TestAmerica Portland



Estella Rieben, Project Manager

*The results in this report apply to the samples analyzed in accordance with the chain
of custody document. This analytical report shall not be reproduced except in full.
without the written approval of the laboratory*

GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: Cullinan Ranch
Project Number: 0758-137-01
Project Manager: Joey Hickey

Report Created:
12/01/08 12:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TP-P-10b	PRK0738-01	Soil	11/19/08 11:00	11/20/08 15:05

TestAmerica Portland



Estella Rieben, Project Manager

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GeoEngineers, Inc.
 15055 SW Sequoia Parkway, Suite 140
 Portland, OR 97224

Project Name: Cullinan Ranch
 Project Number: 0758-137-01
 Project Manager: Joey Hickey

Report Created:
 12/01/08 12:23

Organochlorine Pesticides per EPA Method 8081A
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRK0738-01 (TP-P-10b)				Soil				Sampled: 11/19/08 11:00		
Aldrin	EPA 8081A	ND	---	0.0123	mg/kg dry	1x	8110753	11/21/08 15:20	11/25/08 14:28	
alpha-BHC	-	ND	---	0.0123	-	-	-	-	-	
beta-BHC	-	ND	---	0.0123	-	-	-	-	-	
delta-BHC	-	ND	---	0.0123	-	-	-	-	-	
gamma-BHC (Lindane)	-	ND	---	0.0123	-	-	-	-	-	
gamma-Chlordane	-	ND	---	0.0123	-	-	-	-	-	
alpha-Chlordane	-	ND	---	0.0123	-	-	-	-	-	
Chlordane (tech)	-	ND	---	0.276	-	-	-	-	-	
4,4'-DDD	-	ND	---	0.0123	-	-	-	-	-	
4,4'-DDE	-	ND	---	0.0123	-	-	-	-	-	
4,4'-DDT	-	ND	---	0.0123	-	-	-	-	-	
Dieldrin	-	ND	---	0.0123	-	-	-	-	-	
Endosulfan I	-	ND	---	0.0123	-	-	-	-	-	
Endosulfan II	-	ND	---	0.0123	-	-	-	-	-	
Endosulfan sulfate	-	ND	---	0.0123	-	-	-	-	-	
Endrin	-	ND	---	0.0123	-	-	-	-	-	
Endrin aldehyde	-	ND	---	0.0123	-	-	-	-	-	
Endrin ketone	-	ND	---	0.0123	-	-	-	-	-	
Heptachlor	-	ND	---	0.0123	-	-	-	-	-	
Heptachlor epoxide	-	ND	---	0.0123	-	-	-	-	-	
Methoxychlor	-	0.0184	---	0.0122	-	2x	-	-	11/25/08 11:25	
Toxaphene	-	ND	---	0.368	-	1x	-	-	11/25/08 14:28	

Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene

79.9%

36 - 140%

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: Cullinan Ranch
Project Number: 0758-137-01
Project Manager: Joey Hickey

Report Created:
12/01/08 12:23

Percent Dry Weight (Solids) per Standard Methods
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PRK0738-01 (TP-P-10b)				Soil				Sampled: 11/19/08 11:00		
% Solids	NCA SOP	53.6	—	0.0100	% by Weight	1x	8110981	11/28/08 09:31	11/28/08 09:31	

TestAmerica Portland

Estella Rieben, Project Manager

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GeoEngineers, Inc.
 15055 SW Sequoia Parkway, Suite 140
 Portland, OR 97224

Project Name: Cullinan Ranch
 Project Number: 0758-137-01
 Project Manager: Joey Hickey

Report Created:
 12/01/08 12:23

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results
 TestAmerica Portland

QC Batch: 8110753 Soil Preparation Method: EPA 3550

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (8110753-BLK1)														
Aldrin	EPA 8081A	ND	---	0.00669	mg/kg wet	Ix	--	--	--	--	--	--	--	11/25/08 09:55
alpha-BHC	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
beta-BHC	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
delta-BHC	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
gamma-BHC (Lindane)	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
gamma-Chlordane	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
alpha-Chlordane	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Chlordane (tech)	-	ND	---	0.150	-	-	--	--	--	--	--	--	--	-
4,4'-DDD	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
4,4'-DDE	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
4,4'-DDT	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Dieldrin	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Endosulfan I	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Endosulfan II	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Endosulfan sulfate	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Endrin	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Endrin aldehyde	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Endrin ketone	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Heptachlor	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Heptachlor epoxide	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Methoxychlor	-	ND	---	0.00669	-	-	--	--	--	--	--	--	--	-
Toxaphene	-	ND	---	0.200	-	-	--	--	--	--	--	--	--	-
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene Recovery: 105% Limits: 36-140% Extracted: 11/21/08 15:20														

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (8110753-BS1)														
Aldrin	EPA 8081A	0.0330	---	0.00663	mg/kg wet	Ix	--	0.0330	100%	(64-136)	--	--	--	11/25/08 10:21
gamma-BHC (Lindane)	-	0.0337	---	0.00663	-	-	--	-	102%	(62-140)	--	--	--	-
4,4'-DDT	-	0.0329	---	0.00663	-	-	--	-	99.8%	(65-130)	--	--	--	-
Dieldrin	-	0.0343	---	0.00663	-	-	--	-	104%	(70-135)	--	--	--	-
Endrin	-	0.0350	---	0.00663	-	-	--	-	106%	(65-135)	--	--	--	-
Heptachlor	-	0.0338	---	0.00663	-	-	--	-	102%	(48-124)	--	--	--	-
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene Recovery: 103% Limits: 36-140% Extracted: 11/21/08 15:20														

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Estella Rieben, Project Manager

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GeoEngineers, Inc. 15055 SW Sequoia Parkway, Suite 140 Portland, OR 97224	Project Name: Cullinan Ranch	Report Created:
	Project Number: 0758-137-01 Project Manager: Joey Hickey	12/01/08 12:23

Organochlorine Pesticides per EPA Method 8081A - Laboratory Quality Control Results
TestAmerica Portland

QC Batch: 8110753 Soil Preparation Method: EPA 3550

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	% (Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (8110753-MS1)														
Aldrin	EPA 8081A	0.0350	---	0.0406	mg/kg dry	5x	ND	0.0404	86.6%	(64-136)	--	--	11/25/08 12:18	
gamma-BHC (Lindane)	-	0.0353	---	0.0406	-	-	ND	-	87.4%	(62-140)	--	--	-	
4,4'-DDT	-	0.0399	---	0.0406	-	-	ND	-	99.0%	(65-130)	--	--	-	
Dieldrin	-	0.0352	---	0.0406	-	-	ND	-	87.2%	(70-135)	--	--	-	
Endrin	-	0.0362	---	0.0406	-	-	ND	-	89.8%	(65-135)	--	--	-	
Heptachlor	-	0.0356	---	0.0406	-	-	ND	-	88.2%	(48-124)	--	--	-	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene	Recovery:	87.3%		Limits:	36-140%	-							11/25/08 12:18	
Matrix Spike Dup (8110753-MSD1)														
Aldrin	EPA 8081A	0.0356	---	0.0404	mg/kg dry	5x	ND	0.0402	88.5%	(64-136)	1.87%	(50)	11/25/08 12:44	
gamma-BHC (Lindane)	-	0.0354	---	0.0404	-	-	ND	-	87.9%	(62-140)	0.214%	-	-	
4,4'-DDT	-	0.0386	---	0.0404	-	-	ND	-	95.8%	(65-130)	3.48%	-	-	
Dieldrin	-	0.0349	---	0.0404	-	-	ND	-	86.7%	(70-135)	0.874%	-	-	
Endrin	-	0.0357	---	0.0404	-	-	ND	-	88.8%	(65-135)	1.36%	-	-	
Heptachlor	-	0.0354	---	0.0404	-	-	ND	-	88.0%	(48-124)	0.526%	-	-	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene	Recovery:	84.6%		Limits:	36-140%	-							11/25/08 12:44	

TestAmerica Portland

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GeoEngineers, Inc.
 15055 SW Sequoia Parkway, Suite 140
 Portland, OR 97224

Project Name: Cullinan Ranch
 Project Number: 0758-137-01
 Project Manager: Joey Hickey

Report Created:
 12/01/08 12:23

Percent Dry Weight (Solids) per Standard Methods - Laboratory Quality Control Results
 TestAmerica Portland

QC Batch: 8110981 Soil Preparation Method: Dry Weight

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Duplicate (8110981-DUP1)					QC Source: PRK0738-01					Extracted: 11/28/08 09:31				
% Solids	NCA SOP	53.1	---	0.0100	% by Weight	1x	53.6	--	--	--	0.937%	(20)	11/28/08 09:31	

TestAmerica Portland

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GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, OR 97224

Project Name: **Cullinan Ranch**
Project Number: **0758-137-01**
Project Manager: **Joey Hickey**

Report Created:
12/01/08 12:23

Notes and Definitions

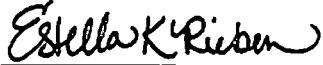
Report Specific Notes:

None

Laboratory Reporting Conventions:

- DET** - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND** - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA** - Not Reported / Not Available
- dry** - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet** - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD** - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL** - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL*** - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B.
*MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil** - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits** - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature** - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*.
Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory.
Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland



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CHAIN OF CUSTODY REPORT

Laboratory

Work Order #: PRK 0738

TestAmerica Sample Receipt Checklist

(Checklist ID:)

Received by:

(section A)
Date: 11/20/08

Time: 1505

Initials: BLE

Unpacked by:

(section B)
Date: 11/20/08

Initials: BLE

Logged-in by:

Date: 11/20/08

Initials: BLE

Work Order No. PRK0738

Client: Geo Engineers

Project: Cullinan Ranch

Temperature out of range:

Not enough ice

No ice

Ice Melted

W/in 4 Hours

Other: _____

***ESI Clients (see Section C)

Cooler Temperature (IR): 2.3 °C plastic glass NA (oil/air samples, ESI client)

Digi #1
Digi #2
Temperature Blank: _____ °C

A Custody Seals: (# ____)

Signature: Y N Dated: _____

None

Container Type:

#Cooler(s)

#Box(s)

None (#Other: _____)

Received from:

TA Courier

Senvoy

UPS

Fed Ex

Client

TDP

DHL

SDS

Mid-Valley

GS/TA

GS/Senvoy

Other: _____

Packing Material:

Bubble Bags

Styrofoam Cubbles

Peanuts

None (Other: _____)

B Sample Status:
(If N circled, see NOD)

General:

Intact?

Y

N

Containers Match COC?

Y

N

none given

IDs Match COC?

Y

N

For Analyses Requested:

Cyanide Checked?

X

N

NA

Correct Type & Preservation?

Y

N

Adequate Volume?

Y

N

Within Hold Time?

Y

N

Volatiles/ Oil Quality:

VOAs/ Syringes free of Headspace? Y N

NA

TB on COC? not provided Y N

NA

Metals:

HNO3 Preserved? Y N

NA

Dissolved Metals Filtered? Y N

NA

C ***ESI Clients Only:

Temperature Blank: _____ °C not provided Digi: # 1 #2

All preserved bottles checked Y N NA (voas/soils/all unp)
All preserved accordingly? Y N (see NOD) NA (voas/soils/all unp)

FED EX/ UPS: Was the tracking paper keepable? YES NO

If circled NO, what is the Tracking number? _____

FED EX Goldstreak UPS DHL Other: _____

Project Managers:

Comments: _____

Cullinan Ranch Final EIS/EIR

PM Reviewed: 163 (Initial/Date)

Appendix 4. Napa Plant Site Monitoring Plan